

ABSTRACT

A high-molecular flocculant rendered water-soluble by conversion of cyano groups contained in a high-molecular material, a method for producing the flocculant, and a method for efficiently processing water using the flocculant. A high-molecular material containing acrylonitrile as a monomer is processed safely to impart hydrophilicity to the material and the resulting product is used for water processing to contribute to environmental conservation. An amino compound is added to a cyano group containing high-molecular material to convert at least a portion of the cyano group ($-C\equiv N$) into a molecular structure portion having an imidamino structure and, if necessary, to convert at least the portion into one of an acid salt, a quaternary ammonium salt or a hydrolyzate structure portion to give a high-molecular flocculant. Alternatively, a high-molecular material having cyano groups is hydrolysed to convert the cyano group into carbamoyl groups, carboxylic groups or their salts to give a high-molecular flocculant. This high-molecular flocculant is charged alone or in combination with commercial flocculants into the water for processing various.